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- (71) Applicant (for all designated States except US): KONIN-KLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): WYLAND, Chris [US/US]; 1109 McKay Drive, M/S-41SJ, San Jose, CA 95131 (US).
- (74) Common Representative: KONINKLIJKE PHILIPS ELECTRONICS N.V.; c/o LESTER, Shannon, 1109 McKay Drive, M/S-41SJ, San Jose, CA 95131 (US).
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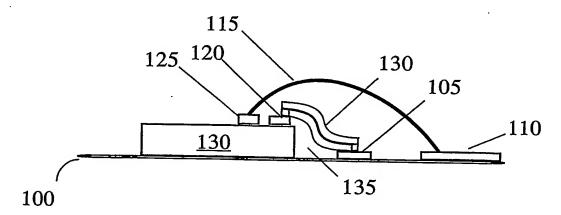
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[Continued on next page]

(54) Title: HIGH DENSITY PACKAGE INTERCONNECT POWER AND GROUND STRAP AND METHOD THEREFOR



(57) Abstract: One aspect of the present invention relates to reducing the impedance of the paths connecting the power or ground of a device and a BGA package. In a particular example implementation, impedance of the signal bond wires is controlled by placing a ground strap (130) at a predetermined distance from the signal bond wires (115). In a related example embodiment, a low impedance power or ground connection is made between a device die (140) and package in close proximity to wire bonds (115). An integrated circuit (140) includes a plurality of grounding pads, signal pads, power pads and a package for mounting the integrated circuit. The package (100) comprises a plurality of pad landings (110), a grounding ring (105) surrounding the integrated circuit (140); and a grounding strap (130) coupling the grounding ring (105) to the grounding pads (120) of the integrated circuit.

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#### **B. FIELDS SEARCHED**

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Х	US 4 600 907 A (LAAKSO CARL W ET AL) 15 July 1986 (1986-07-15)	18
Y	column 2, line 64 -column 4, line 50; figures 1-3	1–17
Y	US 6 424 032 B1 (HOSOYAMADA SUMIKAZU ET AL) 23 July 2002 (2002-07-23)	1–17
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Further documents are listed in the continuation of box C.	X Patent family members are listed in annex.		
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Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL – 2280 HV Rijswijk  Tel. (+31–70) 340–2040, Tx. 31 651 epo nl,  Fax: (+31–70) 340–3016	Authorized officer  Krause, J		

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